



SDMS DocID 2081069

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

IN RE: BALLY GROUNDWATER CONTAMINATION :
SUPERFUND SITE :
:
:

ORIGINAL

Public Hearing in the above matter
held at the Bally Firehouse, 537 Chestnut Street,
Bally, Pennsylvania, on Thursday, March 22, 2007,
commencing at 6:30 p.m., stenographically recorded by
Stacie Burns, Court Reporter and Notary Public.

PRESENT: MITCH CRON, Remedial Project Manager
ALICIA WALLS, Community Involvement
Coordinator

* * *

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1 MS. WALLS: Good evening. We'd like
2 to get the meeting started.

3 Good evening. My name is Alicia
4 Walls. I'm the Community Involvement Coordinator for
5 Region 3, Philadelphia. We are here to explain to you
6 our recommendations for Bally's water supply.

7 First off, I'd like to thank the
8 Bally Borough and Fire Department for helping us
9 arrange this meeting. And I'd like to thank you all
10 for coming out and attending the meeting as well.

11 We're here, as you know, to tell you
12 about EPA's recommendation for ensuring that the public
13 water supply is safe. In just a moment I'll be turning
14 the meeting over to Mitch Cron. He is the project --
15 Remedial Project Manager for this site.

16 But first I'd like to remind you that
17 we are in an official comment period. The period is
18 from March 13 until midnight April 11, 2007. We have
19 copies of our Proposed Plan, which I think everyone
20 received. If not, we have more at the table. You may
21 also access this Proposed Plan and additional site
22 information at this web address.

23 Also, I'm not sure if everyone
24 received them, but we did have comment cards as well,
25 little cards that you can write notes on if you want to

1 jot down a question or a comment.

2 We have a court reporter here tonight
3 who is making a transcript of this meeting. The EPA is
4 required to respond to comments during the comment
5 period and we do this by preparing a Responsiveness
6 Summary. This report summarizes comments we receive and
7 EPA's responses to them. The summary will be
8 attached -- this report, summarized comments we receive
9 and EPA's responses, the summary will be attached to a
10 Record of Decision Amendment that the Region will
11 prepare to document the final selection of a clean-up
12 plan for the Bally Water Supply System. That decision
13 won't be made until the comment period has ended on
14 April 11th. The EPA reviews and considers the comments
15 received.

16 When it is signed you'll be able to
17 see the Record of Decision online at the website listed
18 as well. You will also find this website and Mitch's
19 information and mine as well as the fact sheets that
20 were handed out or that you received in the mail
21 earlier this week.

22 Any comments made tonight will become
23 part of the public record. So if you comment tonight
24 you needn't do anything else to make your opinion
25 known. However, if you leave here tonight and think of

1 something in addition while we are in the comment
2 period, you may either e-mail us or by postal service
3 mail, just make sure if you send it by mail it is
4 postmarked by midnight April 11th.

5 At this point I'm going to turn the
6 meeting over to Mitch Cron. He's going to give a brief
7 presentation about the Bally Site.

8 MR. CRON: Thank you, Alicia.

9 Everyone, my name is Mitch Cron. I'm
10 the Remedial Project Manager. Thank you very much for
11 coming out tonight.

12 I've done my presentation for Alicia
13 who is the Community Involvement Coordinator and her
14 colleagues, and their response was, it's a good
15 response. It's a good presentation, but maybe it makes
16 sense to do a short version of EPA's plan to address
17 the Bally Public Water System, receive comments and
18 then do a longer version with the history of the Site,
19 history of contamination, discussion of the Feasibility
20 Studies, etc.

21 I'll start this off with a very short
22 presentation on the problem, our proposal to fix the
23 problem and the schedule to fix the problem. I'll take
24 questions and comments at that time. And there will be
25 a longer presentation, a history, the discussion of

1 1,4-dioxane, discussion of the Feasibility Study that
2 was performed, etc. Let's launch into it.

3 This is the Proposed Plan for the
4 Bally Public Water System. Next slide. Here's the
5 short version. As many of you know, Bally Supply Well
6 Number 3 exhibits concentrations of compound
7 1,4-dioxane. The 1,4-dioxane is from the Bally
8 Superfund Site. The concentration is very low. They do
9 not pose an immediate concern for human health. It may
10 pose a long-term concern for human health. We feel that
11 a response action is warranted to have 1,4-dioxane out
12 of the public water system permanently.

13 I'm going to use this term a lot
14 tonight. It's second nature because I use it all the
15 time, Potentially Responsible Party. The Potentially
16 Responsible Parties for this Site are the companies
17 that are actually paying for the environmental
18 investigation, investigative work. And I'll detail the
19 Potentially Responsible Parties or the PRP.

20 The PRPs have completed their
21 feasibility study to determine what's the best way to
22 get the 1,4-dioxane out of the public water supply. The
23 Feasibility Study evaluated two basic options: One,
24 installing of a new well in an uncontaminated location;
25 and the second option of a treatment system to the

1 current municipal well to lower the concentration to
2 acceptable levels.

3 EPA has reviewed the PRP study and we
4 determined overall the most probative remedy to address
5 the 1,4-dioxane in the Bally Public Water System is the
6 construction of a new municipal well outside the area
7 of contamination. A new well site has been located and
8 has been tested exhaustively by the Borough. We
9 identified a well site with a very large quantity of
10 water, water of very good quality and a well site --
11 it's in good protection from the Bally groundwater
12 contamination.

13 And finally, the schedule to complete
14 this new well is one year, which includes permitting,
15 design activities for the well house and pipeline to
16 bring the water from the well back to Bally and the
17 actual placement of the pipeline and the construction
18 of the well house. The actual well is currently in the
19 ground, very deep, very wide. It's a question now of
20 constructing a well house and constructing a pipeline,
21 purchasing the necessary equipment to operate a well,
22 etc.

23 So, in summary, in a long story
24 short, that's the problem. That's EPA's proposed
25 solution, and that is a schedule to implement our

1 proposed solution.

2 THE AUDIENCE: My name is Steve. I'm
3 with Berks County Environmental Council. What are you
4 going to do with the existing well?

5 MR. CRON: Municipal Well 3 will
6 continue to pump. The pumping of that well has enacted
7 hydraulic control of the ground contamination by
8 constantly pumping that well. We controlled the extent
9 of contamination. We want to continue pumping that
10 well to protect private wells which lie outside the
11 Borough.

12 THE AUDIENCE: My understanding is
13 that you have a treatment process that is not fully
14 eliminating the 1,4-dioxane from that well. So you
15 have an option or you've requested a discharge to it
16 into a water body. Why can't you obtain 1,4-dioxane
17 removal?

18 MR. CRON: I understand your
19 question. Right now the EPA is evaluating discharge
20 appointment for Well 3. 1,4-dioxane levels that must be
21 achieved in accordance with State requirements, the
22 decision of where the discharge is going to be and what
23 treatment will be required has not been made by the
24 agency. We're currently reviewing the available
25 discharge sites and available technology, etc. In the

1 future we will select a discharge site for the current
2 extraction on Municipal Well Number 3 and we will
3 submit that to the public.

4 THE AUDIENCE: I would hope that the
5 EPA would consider the fact that the current
6 regulations are based on a 170-pound male adult and
7 there are children that use the water body. And the
8 extraction and concentration that you're allowing to be
9 discharged, take into consideration that it's a fishing
10 tributary and that children use that water.

11 MR. CRON: I hear you loud and clear,
12 and it will be considered.

13 Yes, sir.

14 THE AUDIENCE: If they put the new
15 well on line and the water from that well goes into the
16 existing Bally Borough system, what about the
17 contamination already in the pipes and everything? Is
18 that contamination in the existing lines in the Borough
19 contaminated by this and how do you clean the existing
20 lines up so we can put clean water into them?

21 MR. CRON: I understand your
22 question. When the current well is disconnected and
23 the new well outside of the Borough is connected to the
24 municipal water system it will take some time. Not a
25 lot of time. It does not affix to the pipes or

1 reservoir or anything like that. Once we bring in
2 clean water and stop the water with 1,4-dioxane
3 concentration it will in a short period of time return
4 to undetectable levels in a short time.

5 THE AUDIENCE: Who absorbs the cost of
6 the well? Is that in the government Superfund Site?
7 There's a budget. We're putting a well in Bally. Who
8 is absorbing that cost?

9 MR. CRON: The PRPs for this Site are
10 absorbing the Feasibility Study, the design of the new
11 well, as well as the construction. They'll absorb
12 these costs.

13 THE AUDIENCE: I have a couple
14 questions, more to do with the Superfund Site. You
15 were testing the basements in our development last
16 year. I kind of need a time line. When did the
17 Borough -- the Borough first find out that that whole
18 area was a Superfund Site?

19 MR. CRON: I can tell you almost
20 exactly. In 1982 the EPA sampled Municipal Well 3 and
21 determined that increasing chemicals were present in
22 that well. In 1987 the Site was designated a Superfund
23 Site.

24 THE AUDIENCE: 1987?

25 MR. CRON: That's correct.

1 THE AUDIENCE: What area from Bally
2 to, you know, where the development is, is that
3 development on a Superfund Site?

4 MR. CRON: The Superfund Site is
5 defined by -- the extent of contamination lies in the
6 Bally Case and Cooler and Bally Engineered Structures.
7 There is a pool of groundwater contamination. The
8 plume lies between the facility and Municipal Well 3
9 behind the baseball fields in this direction, directly
10 behind the Borough building. Up the hill there's
11 picnic tables.

12 THE AUDIENCE: And housing.

13 MR. CRON: And exactly. There are
14 two very large black towers. Those black towers are
15 the air stripper treatment system.

16 THE AUDIENCE: Technically that
17 Superfund Site would go from Bally Case and Cooler,
18 what used to be that building. Our house lies in line
19 with that well. Would you consider that whole area a
20 Superfund Site?

21 MR. CRON: I know that area, the
22 extent of the groundwater contamination.

23 THE AUDIENCE: Is it allowable to
24 build on a Superfund Site? Is it legal?

25 MR. CRON: I'm not a lawyer. I don't

1 get involved in that aspect of the Superfund program.
2 My role is really to act as a project manager for the
3 investigation of sites, the cleanup of sites and the
4 long-term effects of the cleanup systems.

5 THE AUDIENCE: That was going to be my
6 next question. If you do build on that Site, we tried
7 to sell the house a year ago and we obviously have to
8 disclose. We have to give them a stack of papers about
9 that fact, regarding the groundwater contamination in
10 Bally. I'm not -- but we have to disclose that to
11 potential buyers.

12 My other question would be, I don't
13 know if you can answer this either, would the builder
14 who built that house, wouldn't he have to disclose that
15 to the person buying the house? Would that have to be
16 disclosed to the initial buyer?

17 MR. CRON: I understand your question
18 perfectly. I don't know the answer. Afterward -- I
19 remember your face perfectly. Stop by. Let's
20 reconnect. Let me get your information and I'll talk
21 to regional counsel. That's a very good question to
22 pose to an attorney who's familiar with environmental
23 and real estate law.

24 THE AUDIENCE: If you're going to
25 have to pump and clean the water from the old well, is

1 there any reason why it's not a feasible approach to
2 not go to the new well but clean that and use that? It
3 sounds like double trouble.

4 MR. CRON: The PRP, I'm going to use
5 that term all night, has evaluated treatment options
6 for Municipal Well 3. They did a good job. They
7 evaluated the universe of technology. They narrowed it
8 down to two oxidizing technologies and they evaluated
9 those technologies in small scale laboratory tests. The
10 concern that the PRP put forth in the Feasibility
11 Study, there is the potential at very low concentration
12 for 1,4-dioxane to break through, which would be very
13 undesirable to the public water supply.

14 There's also the possibility to
15 create toxic by-products, specifically the treatment
16 technologies created low concentrations of aldehyde and
17 bromate. The two concerns that the EPA has with the
18 treatment is contamination break through at low levels
19 and B, the potential for corrosion of by-products.

20 THE AUDIENCE: You're going to have
21 the same problem when cleaning the well.

22 MR. CRON: Those are issues to
23 consider, absolutely. The purpose is to describe the
24 Proposed Plan, how to get the Superfund contamination
25 closed out, aspects of the Site, the discharge point of

1 the extraction well. There's a lot of things to
2 consider. We'll get -- I'll be back up here to present
3 that as well.

4 I can go to the longer version, some
5 description of 1,4-dioxane. If you have questions,
6 feel free to ask them.

7 The long version. A brief history of
8 the Bally Superfund Site. I made the statement it was
9 identified in 1982. As I just indicated the
10 Pennsylvania Department of Environmental Resources
11 collected a water sample. They identified degreasing
12 chemicals. Municipal Well 3 was taken off line after
13 the contamination was identified. Municipal Well 1,
14 which lies near the Bally Ribbon Mill, was brought on
15 line and water for the Borough was brought in by there.

16 In 1987 Bally Engineered Structures,
17 who had a large factory approximately 200 yards to the
18 west of Municipal Well 3, agreed to perform an
19 environmental investigation of the groundwater
20 contamination, both the extent as well as the source of
21 contamination.

22 In 1987 the Bally Site became a
23 Superfund Site. In 1989 the environmental investigation
24 was complete. Bally Engineered Structures was
25 determined to be the source of contamination. In '89

1 the PRPs constructed an air stripper water treatment
2 system at Municipal Well 3. That air stripper treatment
3 system was operated at the well to remove the volatile
4 degreasing agent from the water before it was
5 distributed to the water system or surface.

6 In 1989 an official decision document
7 was issued. That Record of Decision when you boiled it
8 down was basically to pump and treat water from
9 Municipal Well 3 to maintain control of the groundwater
10 contamination and provide the treated water to the
11 Bally Public Water Supply or discharge to a groundwater
12 supply. That operated between 1989 and 2003.

13 As many of you know EPA requested
14 that the PRP be asked to evaluate for 1,4-dioxane.
15 They found that was present in the groundwater in the
16 well, in the water treatment system and in the Bally
17 Public Water Supply itself.

18 That's a brief history of how we got
19 to this point.

20 THE AUDIENCE: And there were no
21 other contaminants?

22 MR. CRON: I believe there were five
23 or six volatile organic compounds, trichloroethylene,
24 1,1,1-trichloroethane, 1,1-dichloroethene,
25 tetrachloroethylene, 1,1-dichloroethane, ethylene

1 chloride, 1,2-dichlorethane. So 1,4-dioxane is one of
2 the contaminants but it's one of approximately six.

3 THE AUDIENCE: It might do good to
4 explain the difference between those so they understand
5 how some sink, some float, and how it's used, what is
6 the difference when you treat.

7 MR. CRON: 1,4-dioxane to start with,
8 volatile TCE is a substance which is heavier than
9 water. When it's released into the environment it
10 sinks below the water table in a pure form. It can
11 create small pools in a subsurface. Those pools are
12 called DNAPLs, denser-than-water, nonaqueous phase
13 liquids. Heavier than water that can pull underground.

14 1,4-dioxane is different than that.
15 1,4-dioxane dissolves completely in water. It does not
16 disperse once in water. It dissolves completely.

17 THE AUDIENCE: By drawing down number
18 3 to treat it for discharge, what happens to the
19 DNAPLs?

20 MR. CRON: At this Site we have not
21 evaluated the Bally Engineered Structures site for
22 DNAPLs. I can say to you we've not actually tested for
23 DNAPLs or identified DNAPLs at this Site.

24 THE AUDIENCE: Isn't there potential
25 for draw down below the cleanup level? How can you

1 eliminate those contaminants and look at only the one?

2 MR. CRON: We're in luck. The
3 Region -- this was not on purpose, Kathy Davies is
4 here. She's a hydrogeologist and graciously she is an
5 expert on the subject of DNAPLs.

6 These are very good questions. Can
7 you address this?

8 MS. DAVIES: I'd be happy to.
9 Underneath the surface near here is fractured rock. So
10 it's rock with very small fractures in them and some
11 bigger and sort of dispersed.

12 THE AUDIENCE: Will you please use
13 the microphone?

14 MS. DAVIES: Underneath the surface
15 of the Bally Site is fractured rock, what you might see
16 on the outcrop down on the roads. And it's those rocks
17 in layers with fractures running through them. When the
18 contamination is spilled or piles on the ground,
19 disposed of on the ground, these DNAPLs, they're
20 separate phase liquids and they'll sink due to gravity
21 as far down as their material that feeds them. When you
22 spill something on a table there's that finite distance
23 that that amount of liquid goes. Unless you keep
24 adding to it, it will stop. It's the same idea with
25 these heavier-than-water degreasing chemicals.

1 What happens, the degreaser, which
2 was TCE, trichloroethylene, was used until the mid
3 '70s. Then it became evident it may be a problem to
4 use because of its toxicity. People used
5 1,1,1-trichloroethane. They felt it was safer to use.
6 The difference between TCE and the 1,1,1-TCA is they're
7 different kinds of chemicals. And 1,1,1-TCA needed a
8 stabilizer, something to keep it from reacting. And
9 the stabilizer is the 1,4-dioxane. So the 1,4-dioxane
10 can dissolve out of the 1,1,1-TCA and continue to move.
11 And it does not like to be absorbed onto organic
12 matter. That's why they can't strip it.

13 When you were using the volatile
14 organics, they moved out of the liquid by the water and
15 into the air and captured by the carbon units. But the
16 1,4-dioxane doesn't volatilize. So it stays in the
17 water and that's why it was still present in the Bally
18 drinking water supply. The volatiles were stripped and
19 treated. The 1,4-dioxane continued to be there.

20 THE AUDIENCE: The other four or five
21 volatile organic chemicals, they don't pose any threat
22 to people?

23 MR. CRON: No, we take periodic
24 samples of Municipal Well 3, the water that comes from
25 there. And it's confirmed that it's coming out with

1 the air stripper. It removes the VOCs completely.
2 1,4-dioxane is not removed by the air strippers.
3 That's why we're here tonight.

4 THE AUDIENCE: Is some of that
5 contamination coming from the Crossley Farm?

6 MR. CRON: I'm going to throw her
7 that question.

8 MS. DAVIES: I'm actually not the
9 Site hydro, but I've been helping with the Site. I am
10 familiar with it.

11 The contamination is not related in
12 terms of coming and commingling in the ground. It's not
13 the same plume of contamination. The plume of
14 contamination associated with the Bally Site was
15 contamination that was spilled or somehow disposed of
16 within the Site boundaries. And then most likely -- I
17 think the question about the DNAPLs was a good question
18 because most likely it does enter the ground as a
19 separate phase chemical that hangs out in the fractures
20 and as the groundwater moves past it it dissolves and
21 makes this plume of contamination. And although we
22 haven't actually seen DNAPLs, we like to use multiple
23 lines of evidence, try to figure out how long the plume
24 has been there, what kind of concentration. We look at
25 a different sort of evidence to see if potential

1 probably exists, and by pitching Municipal Well 3 we
2 maintain control for that groundwater plume. It can't
3 get past the well because they're taking water out and
4 treating it.

5 MR. CRON: That's a good question.
6 Crossley Farm Superfund is close by. The contamination
7 is not from the ground water contamination at that
8 site.

9 THE AUDIENCE: Is the Crossley Farm
10 the same contaminants?

11 MR. CRON: Some of it is. The actual
12 Crossley -- the contaminant came from the Bally Case
13 and Cooler property. Some of the contaminants are. TCE
14 is the big one.

15 MS. DAVIES: It does not have the
16 1,4-dioxane because what happens with the degreasing
17 process is the chemicals vaporize and attach themselves
18 to the metal and hit the cold metal and it drops back
19 down. It's a distillation process. And since the
20 1,4-dioxane is not very volatile, it gets concentrated
21 in the sludgy stuff. When that's disposed of that's
22 called still bottom. Maybe there's a potential for
23 1,4-dioxane and that's what sort of led us to look at
24 it here.

25 MR. CRON: 1,4-dioxane, I wanted to

1 prepare a slide to give you a brief summary. It is a
2 solvent stabilizer associated with the degreasing agent
3 trichloroethylene. The oils and the actual solvents
4 decompose. They create hydrochloric acid. If that's
5 not dealt with it can corrode the part you're cleaning
6 and your cleaning equipment. You have to have
7 something to neutralize the acid. Those are called
8 trichloroethylene.

9 1,4-dioxane has been classified by
10 the EPA as a probable human carcinogen. There is no
11 immediate human health risk from 1,4-dioxane, but based
12 upon animal studies performed EPA classified it as a
13 probable human carcinogen.

14 Concentration has varied over the
15 past four years from 24 parts per billion to 77 parts
16 per billion. As we indicated previously, the
17 concentration does not represent an immediate or
18 short-term threat to human health. However, based on
19 1,4-dioxane as a probable human carcinogen there may be
20 potential for long-term human health effects.

21 The EPA seeks to address this through
22 the implementation of response action, which in this
23 case our preferred response is the installing of that
24 new well.

25 THE AUDIENCE: What does the billion

1 represent?

2 MR. CRON: 24 parts per billion.

3 THE AUDIENCE: What?

4 MR. CRON: Billion parts of water. A
5 very, very low concentration. This is the history. The
6 initial response in 2003, in February, March of 2003,
7 the PRP began to provide bottled water to any user of
8 the public who wanted to limit their exposure.

9 In September 2003 EPA and the PRP
10 entered into an administrative order and consent, a
11 legal agreement, wherein the PRP agreed to do three
12 basic things: A, agreed to perform a Feasibility
13 Study, what was the best way to remove the 1,4-dioxane;
14 B, monitor Municipal Well 3 for 1,4-dioxane
15 concentrations to see if it changed, and C, they agreed
16 to continue to provide bottled water to residents until
17 the situation was resolved.

18 THE AUDIENCE: Who are these PRP and
19 why are they doing this?

20 MR. CRON: PRP perform environmental
21 investigation and cleanups at the Site because they
22 have some legal relationship to the property itself.
23 The PRP at this Site is a very complex legal matter.
24 The company was Bally Case and Cooler and Bally
25 Engineered Structures. Those are names I know I can

1 comprehend. I've seen the stationery. Bally Engineered
2 Structures and the Sunbeam family of companies are
3 related. And the PRPs for this Site are broadly
4 companies related to the Sunbeam family of companies.
5 They are performing environmental investigation and
6 cleanup because they have some legal relationship to
7 Bally Engineered Structures.

8 THE AUDIENCE: Is it absolutely safe
9 to wash your dishes and take showers?

10 MR. CRON: Yes, it is. It is
11 absolutely safe for washing, cooking, cleaning. The
12 concentration -- because 1,4-dioxane is a probable
13 human carcinogen, it represents a potential or very low
14 increase in one's lifetime of cancer risk. That risk,
15 as small as that risk is, it's caused by ingestion. To
16 use it as wash water, dish water, that's correct.

17 THE AUDIENCE: Has anybody done a
18 sampling to see if the cancer rates are higher than
19 normal?

20 MR. CRON: That came up in a
21 newspaper article and the same question came up in
22 2003. In 2003 we had a gentleman, Tom Stukus. Tom was
23 with the Agency for Toxic Substances and Disease
24 Registry. And they're sort of the sister agency of the
25 EPA who know toxicology, health effects, that kind of

1 thing.

2 At the time the same question came up
3 in the community and Tom provided the name and
4 information for two gentlemen at the Pennsylvania
5 Department of Health. I have the same information
6 tonight. Tom indicated at that time that if there was
7 interest in having that kind of evaluation performed,
8 the Pennsylvania Department of Health would perform
9 that type of evaluation. Subsequent to that, Tom has
10 retired. We reviewed Tom's files. He did follow up
11 with the Pennsylvania Department of Health. No request
12 was put forward to perform that evaluation.

13 To the best of my knowledge, no, that
14 sort of evaluation has not been performed.

15 THE AUDIENCE: Who would come forward
16 to do that?

17 MR. CRON: The Borough, a private
18 citizen. There are a lot of options. I can provide
19 that to you tonight. I brought that information.

20 THE AUDIENCE: You're saying it's a
21 probable. That would be an indication, yeah, it's
22 secondary?

23 MR. CRON: I don't want to discount
24 the concern of EPA for this situation. We're concerned
25 about this. We take the Site and the situation very,

1 very seriously. That's why the PRP performed the
2 Feasibility Study and selected a response action we
3 feel would be the most protective response action.

4 THE AUDIENCE: You have 20 years of
5 history here.

6 MR. CRON: That's correct. I agree
7 with you.

8 THE AUDIENCE: I was going to say,
9 cancer is a reportable disease. So there should be and
10 there are records. Just the record for Berks County
11 was in the Reading Eagle several weeks ago regarding
12 the incidence of cancer and separated by municipality.
13 You can find whether it's within the norm or outside
14 the norm by looking at those. And then if there's an
15 alarming number maybe that's where you go.

16 MR. CRON: I have the names and
17 numbers of the two gentlemen, the Department of
18 Epidemiology and Director of Environmental Health. And
19 I can provide that information for anyone.

20 Next slide. As I indicated, the PRP
21 performed the Feasibility Study. There were two basic
22 options. Option one, installation of a new well in an
23 uncontaminated site. Option two, addition of another
24 treatment system to the current well to treat the
25 1,4-dioxane.

1 THE AUDIENCE: Why did it take four
2 years to get that?

3 MR. CRON: It's 100 percent
4 legitimate question. It deserves to be answered. It
5 will be. The Feasibility Study is complete. Over the
6 past four years, five well sites have been investigated
7 by the PRP, and an appropriate new well site has been
8 located. In addition, the treatment option was
9 evaluated by the PRP under EPA oversight.

10 Broadly, the treatment was evaluated
11 in two ways. The first PRP study did a literature
12 review and vendor review to look for technology. They
13 boiled the universe down to two treatment technologies.
14 They're both oxidizing technology, which is ozone as
15 oxidizing and a hydrogen peroxide and ultraviolet light
16 to break down the 1,4-dioxane to acceptable levels.

17 The PRP actually collected water
18 samples and provided those samples, one, to a treatment
19 vendor and, two, to a university to perform
20 in-laboratory tests of these two technologies to see
21 how well they perform, how well they broke down
22 1,4-dioxane and if any kind of toxic by-product was
23 produced.

24 Feasibility, why did this take so
25 long? I had a lot of time to think about this. It's a

1 question I knew I would receive. It's a hundred percent
2 legitimate and I want to answer.

3 The treatment option was
4 substantially complete by July of 2003, approximately
5 six months after our meeting. Review of the treatment
6 options wasn't hard to do. Everything was under PRP
7 with EPA oversight, it was to talk to vendors, to see
8 other people's experiences, etc. It was also under our
9 control to gather water samples to send them to vendors
10 and university to do testing. The actual review of the
11 material was substantially complete in the summer of
12 2003.

13 The new well option was much more
14 difficult than we originally anticipated. I've had a
15 lot of time to think about this. I think the difficulty
16 boiled down to hydrogeology, where water is present
17 beneath the earth and private property, who owns the
18 land. Basically I've written on the slide these are my
19 thoughts on that. We needed a land owner who had a lot
20 of acres. We needed quite a few acres. B, they had to
21 have the land and good potential for water beneath the
22 land, a lot of water. A good location for a public
23 water supply well. A lot of land with a lot of water.
24 And the third part is one of the hardest parts, not
25 only the land and water but an owner who is willing to

1 help us solve this and sell us a portion of the land.
2 It did take four years. I think it was worth the wait.
3 The fifth well site is by far the most superior well
4 site. Excellent quality of water, excellent quantity
5 and is well protected from the Bally plume. I think at
6 the end of the day we've got the best solution now.

7 THE AUDIENCE: How deep is the Number
8 3 Well?

9 MR. CRON: The Number 3 Well I
10 believe is over 300 feet deep.

11 THE AUDIENCE: The new well is 400
12 feet deep. Is that going to draw the plume that
13 direction?

14 MR. CRON: We evaluated that question
15 very carefully. Based on a nine day test, the new well
16 site was pumped for nine days. Over those nine days
17 the PRP, EPA, DEP observed how water levels responded
18 to the pumping of that well. Based upon that pumping
19 test we do not expect the plume to move near the new
20 well. We expect it to remain isolated from the new
21 well.

22 THE AUDIENCE: What about the
23 consideration for the surface water that's near the
24 well and are there still negotiations with any of those
25 parties yet?

1 MR. CRON: I'm going to address the
2 private wells first. I will research this on behalf of
3 those neighbors. I'll find out the answer to this.

4 THE AUDIENCE: There is draw down. We
5 know that from the test that was done. Those homeowners
6 are without water when you run the test. There is no
7 evaluation, to my understanding, that was done down in
8 that stream. If it was it was done without permission.
9 And third of all, there's easement issues that have
10 never been addressed with land owners that have been
11 brought to their attention and nobody has addressed
12 them. You're looking at a solution after four years and
13 still looking at problems.

14 MR. CRON: I'll personally work with
15 the neighbors to make sure we tackle these problems and
16 work this out to the greatest extent possible so people
17 are satisfied with the solution. My understanding of
18 Pennsylvania Water Law, if a private well owner is
19 impacted by the long-term operation it will not be
20 their problem. It will be our problem. If the
21 long-term operation impacts somebody's well we'll make
22 it right and find a way to get it fixed.

23 The surface water question is tough.
24 We have a PRP representative, the engineer.

25 Mike, can you describe what kind of

1 work you've done for the impact and what kind of
2 evaluation you will perform to see if the operation of
3 the new well will have an adverse effect?

4 THE ENGINEER: I can give a quick
5 version. During the water test that was conducted that
6 Mitch alluded to, it was pumped for nine days. During
7 that test we monitored what we call piezometers, which
8 are shallow monitoring wells, certainly in the wetlands
9 and in a stream in a ditch nearby.

10 THE AUDIENCE: We monitored the
11 stream at a couple of locations right along Route
12 100.

13 THE ENGINEER: Sometimes I forget all
14 the details. Anyway, we looked at piezometers, which
15 are shallow wells so to speak, to find out what's going
16 on in the surface as well as we monitored the flow in
17 the stream. That's what we did during the test.

18 For a well like ours Pennsylvania
19 Environmental Protection requires the first six months
20 of the operation you have to look at certain parameters
21 to surface water infiltration protocol. It's belt and
22 suspenders. The next step then once you operate then
23 you verify for a certain period of time you're not
24 pulling in surface water.

25 MR. CRON: During the test you did

1 evaluate the surface and we did not observe any
2 impact.

3 THE ENGINEER: Not only did we
4 evaluate, we found there was no impact.

5 MR. CRON: That evaluation will
6 continue during an actual construction and operation of
7 a well.

8 The residential well question is a
9 very good question, very pertinent and legitimate. Let
10 me know who's nearby to the well site, the names,
11 addresses, the concerns and we'll work on this.

12 THE AUDIENCE: They should know the
13 draw down. They should have known. I shouldn't have to
14 be telling you anything. They should tell you.

15 MR. CRON: I understand your
16 question. It's very clear. I understand the question.
17 I'll work on that.

18 All right. So the Feasibility Study
19 was prepared and reviewed by EPA. It's a boiler plate
20 slide. When EPA reviews a feasibility we look at
21 certain criteria. There are the thresholds it has to
22 meet, these two top criteria. It has to be overall
23 protective of human health and environment and
24 applicable or appropriate and meet relevant
25 requirements. So there's a lot of legalities that go

1 into that. What it basically means, local, state and
2 environmental, location, protective of human health and
3 environment.

4 There's then five balancing criteria.
5 The long-term effectiveness of a remedy. Will it be
6 effective over decades? Reduction of toxicity. Does
7 the remedy incorporate treatment? Short-term
8 effectiveness. How quickly to implement? Are there
9 specific problems or advantages to implementing a
10 remedy, local vendors of technology, etc.? And cost,
11 what are the relative costs to implementing a remedy?

12 Modifying criteria, state acceptance.
13 Does that state, the State of Pennsylvania, do they
14 accept, does the community accept the remedy? Do they
15 have problems with the remedy? These are considered by
16 EPA in reviewing and selecting remedies for Superfund
17 Sites.

18 So this gives us, you know, some
19 broad picture. I wanted to do slides on the comparison
20 on the two alternatives, the new well and the
21 treatment.

22 The new well had advantages and
23 disadvantages. The well site is in an uncontaminated
24 location. It's not contaminated by the Superfund Site.

25 THE AUDIENCE: When you make the

1 statement well site identified in uncontaminated area,
2 have you considered 500 yards east was pumped?

3 MR. CRON: We did hear about that.

4 THE AUDIENCE: It's not something you
5 hear about it. It's a fact.

6 MR. CRON: I understand your
7 question. We sampled that well site at the beginning of
8 the pumping and nine days in we did not see any
9 evidence of chemical contamination in that area. We
10 sampled monitoring wells near the Site. It was a
11 concern. It was evaluated, and we did not identify
12 contamination in that area.

13 Just to run through the well site.
14 It's in an uncontaminated area. It does not require
15 any special form of treatment or environmental
16 connotation and the hydrogeology protects that from the
17 contamination plume. It's in a good location for
18 protection from the Bally plume.

19 In terms of disadvantages, there may
20 be access issues to private property. It's not a huge
21 disadvantage, a little. It will take some time to do
22 that.

23 Now, comparison of alternatives. The
24 big one, there's no special access required. The well
25 site lies on public property. We can go up there at any

1 time with permission from the Borough of Bally and
2 construct pilot treatment systems. So access is very
3 easy to that site.

4 As I indicated previously, there's
5 two what I consider to be major disadvantages of
6 additional treatment. The first one is there's a
7 potential for 1,4-dioxane at very low concentration to
8 break through a treatment system. There's not evidence
9 that 1,4-dioxane can be reliably reduced all the time
10 and that's a concern in the context of a public water
11 supply. And the other concern is during the actual
12 in-laboratory testing that the PRP performed under EPA
13 oversight, as I indicated previously toxic by-products
14 produced aldehydes and bromate. Those two
15 disadvantages.

16 THE AUDIENCE: How long will the
17 plume that's there now, how long is that going to be --
18 how long will it take for the contamination to work its
19 way out or be drawn out?

20 MR. CRON: I asked myself that same
21 question. I'm thinking in the context of decades. It's
22 going to take time.

23 THE AUDIENCE: When you have this new
24 well on line, is that going to be the only water
25 source?

1 MR. CRON: That would be the only
2 water source for Bally.

3 THE AUDIENCE: Are you going to have
4 to keep pumping so the plume don't move?

5 MR. CRON: That's correct.

6 THE AUDIENCE: You're not going to
7 fix it?

8 MR. CRON: No.

9 THE AUDIENCE: The reservoir up there
10 isn't used anymore?

11 MR. CRON: My understanding is it's a
12 concrete reservoir.

13 THE AUDIENCE: The spring --

14 MR. CRON: That's no longer used. It
15 was discontinued in approximately '89. It's for head
16 pressure. It keeps the pressure on the water system.

17 THE AUDIENCE: Were the lagoons ever
18 excavated down to 30, 40 feet?

19 MR. CRON: On the Site itself?

20 THE AUDIENCE: Yes.

21 MR. CRON: I think they were
22 backfilled and constructed over. That was back in the
23 '60s or '70s, many years ago.

24 THE AUDIENCE: Are there any aerial
25 photos?

1 MR. CRON: Yes, there are.

2 THE AUDIENCE: Where?

3 MR. CRON: The Bally Case and Cooler
4 property approximately in the middle of the Site
5 itself. Those lagoons, you know, to my knowledge were
6 backfilled and constructed over. That's many years ago,
7 maybe 40 or 50 years ago.

8 THE AUDIENCE: I know when I was a
9 teenager there was one straight out the street and
10 across the pond where the -- it's like a pond now, just
11 a stream.

12 THE AUDIENCE: That was a mill pond.

13 MR. CRON: A mill pond?

14 THE AUDIENCE: That was the mill
15 pond. There was a chemical pond, across from the pond
16 there was a cornfield, a pond. You can see where the
17 pond was and then there was a cornfield and then over
18 before Bally Case there was a lagoon there with
19 chemicals in it. They used to chase us away from it
20 but you could still see it.

21 MR. CRON: Let's talk afterward. I
22 would like to hear more about that.

23 Yes, sir.

24 THE AUDIENCE: What are you going to
25 do to control development?

1 MR. CRON: The PRP has arranged to
2 purchase a certain acreage of property to control
3 development. There are state requirements for how much
4 land you need to yield a certain amount of water. A
5 certain amount of land has not been acquired but an
6 agreement has been.

7 THE AUDIENCE: Once you switch to a
8 new well will the PRP maintain responsibility?

9 MR. CRON: For the new well, very
10 interesting legal question. The PRP and the Borough of
11 Bally are working on an agreement for that. In my view
12 the decision document that EPA will eventually write
13 will contain language that reads a certain quantity of
14 water and a certain quality is required. So if the new
15 well should exhibit a lesser quality or quantity, I
16 believe the EPA can look to the PRP to resolve it.

17 THE AUDIENCE: The community will be
18 responsible for running two wells, the additional
19 expense will be to the community?

20 MR. CRON: I don't believe so. The
21 community will become responsible. The existing well
22 will be the extraction and the PRPs themselves will be
23 responsible for that one.

24 THE AUDIENCE: Are you saying that
25 the new well will be the community's responsibility

1 even if it's polluted?

2 MR. CRON: No. In terms of operation
3 and maintenance but not in terms of pollution, no.

4 Feasibility Study, EPA comparison of
5 the two alternatives, and once again to get back to
6 this, this is the EPA preferred alternative. The
7 preferred alternative is the installation of the new
8 well. Having reviewed the Feasibility Study overall in
9 terms of human health, the new well would be the
10 superior alternative. It will provide the Borough with
11 adequate quantity and quality.

12 The construction of the well house
13 and water pipeline, well equipment must be purchased.
14 The time frame to complete that is approximately one
15 year. In addition, as part of the EPA's preferred
16 alternate action groundwater monitoring will be
17 updated. The monitoring will include wells between the
18 plume and the new well, which will be periodically
19 sampled and analyzed to confirm that the contamination
20 plume is staying in the plume. If the contamination
21 plume, which we don't expect to happen, but if it does
22 move into the well we'll have a contingency plan to
23 stop the Bally plume from impacting the new well.

24 There's the three components, the new
25 well, upgraded groundwater monitoring and contingency

1 plan.

2 THE AUDIENCE: I have two questions.
3 My first is sort of a comment. You had said previously
4 that there would be no contamination, that the plume
5 would not contaminate the new well. Now you're saying
6 there's a contingency. If there's a chance what is the
7 contingency?

8 MR. CRON: We don't want to say never.
9 We're saying that we're going to check. We want to
10 check and have some safety catches in place. We want to
11 have wells between the plume and the new well to
12 confirm what we believe is true, that that plume will
13 not move towards the new well. And we also want to
14 plan in advance. If in fact contrary to our
15 expectations the plume does in fact appear to be
16 moving, we wanted to have a plan in place that we can
17 implement to stop it from moving. It might be the
18 installing of another extraction well between the new
19 well and existing plume. The details of the contingency
20 have got to be worked out. We have to have some kind
21 of plan in place. What do we do if, just for safety.

22 THE AUDIENCE: How far is the old
23 well from the source of contamination and how far is
24 the new well going to be from the source of the
25 contamination?

1 MR. CRON: The old well from the
2 source is at most 200 yards. The new well from the
3 source of contamination, I would estimate to be a
4 little over a mile, perhaps a mile. A substantial
5 distance. Perhaps three-quarters of a mile. A very
6 large distance.

7 THE AUDIENCE: Certainly a larger
8 distance.

9 MR. CRON: Absolutely.

10 THE AUDIENCE: Are our water lines,
11 are they contaminated by dioxane moving through it all
12 the time?

13 MR. CRON: Dioxane maintains
14 solubility in water. It does not affix to lines. Once
15 the new well is on line and the old well off, the
16 dioxane will clean up and will be eliminated from the
17 system.

18 THE AUDIENCE: What happens if the
19 Bally area goes through a substantial housing boom?

20 MR. CRON: I understand your
21 question. We've considered that. Right now the Bally
22 Public Water System uses approximately 120 gallons per
23 minute. The new well will be capable of producing 300
24 gallons per minute. Much more than is currently used.
25 We feel that cushion provides for a substantial growth

1 and it will meet the Borough's needs.

2 THE AUDIENCE: Will the well be
3 pumping at 300 gallons whenever it's pumping?

4 MR. CRON: It won't be necessary. The
5 well will pump as much as the Borough needs.

6 THE AUDIENCE: In the event of a fire
7 would the well be capable of -- I work for Bally
8 Ribbon. It's a large facility. We pay for an
9 insurance surcharge because we don't have enough water
10 flow in the pipes in the event of a fire. If you have a
11 smaller well pump that's going to be another detriment
12 to us.

13 MR. CRON: That's something to
14 consider. Yes, sir.

15 THE AUDIENCE: The piping that
16 supplies water determines how much water pressure and
17 the flow through the pipe, not the pump. The pump pumps
18 it to the reservoir and it's pressurized to the system.

19 THE AUDIENCE: The Borough did a study
20 several years ago, which we helped fund. The well-being
21 on that side of town, some of the water would come from
22 the reservoir and some from the pumps. Together they
23 would determine the gallons per minute and that's what
24 the insurance carrier is looking at. You have to have
25 minimal pressure and gallons per minute.

1 MR. CRON: Thank you for that
2 comment. We will consider that.

3 The second to last line is this,
4 there's a public involvement as part of Superfund
5 remedy selection. EPA will collect public comment on
6 EPA's preferred alternative, which is the installing of
7 a new well. We will review the comments and provide a
8 response in a specific document. The document is called
9 a Responsiveness Summary. That summary will be an
10 appendix to EPA's decision document for this Site which
11 is a Record of Decision. In this case it's going to be
12 a Record of Decision Amendment, an amendment to the
13 original decision in 1989. The public comment for EPA's
14 preferred alternative is March 13 to April 11.

15 On the next slide, you can contact me
16 in a lot of different ways. You can call me. You can
17 write me a letter. You can write me an e-mail,
18 whatever you want to do. After the presentation you can
19 make your public comments now.

20 THE AUDIENCE: There's a major
21 development, housing project down Route 100 between
22 Bally and Boyertown. Will that impact this at all?

23 MR. CRON: I don't believe so. I do
24 know about that. I had heard about that. We looked at
25 that. I don't believe that will have an impact on the

1 new well for the Borough.

2 THE AUDIENCE: Is there a buffer zone
3 around a Superfund Site? Do you understand my question?

4 MR. CRON: Like?

5 THE AUDIENCE: I think of this
6 everyday. I have three children. I walk out and
7 there's Bally Case and Cooler. And I just -- I cannot
8 believe how someone would get permission to build on a
9 Superfund Site, if that's the case, and how that would
10 not have to be disclosed to the people buying the
11 house.

12 MR. CRON: Let's talk about this.
13 Let me get your name and number and let's talk about
14 this specifically. I have to talk to the office of
15 regional counsel, what kind of real estate law.

16 THE AUDIENCE: For all intents we are
17 on top of that place. I hear the gentleman talking
18 about there used to be a pond with chemicals and it got
19 bulldozed over. I -- I don't know what's going on.

20 MR. CRON: Give me a name and number.
21 We'll track it down.

22 THE AUDIENCE: What other chemicals
23 are there we don't know about living that close?

24 MR. CRON: I hear you loud and clear
25 and understand your frustration.

1 THE AUDIENCE: Give us a time line
2 when the Record of Decision Amendment is completed.
3 When is this all going to take place? When is this all
4 going to happen?

5 MR. CRON: The question is regarding
6 the time frame. The comment period is through April
7 11, and it kind of depends -- it depends how many
8 public comments EPA receives and what kind of comments
9 EPA receives. They have to sit down, go through the
10 comments, see how we want to respond and see if they
11 change our opinion on the preferred alternative. At
12 least 30 days to respond to public comment. That's May
13 11. And approximately 30 days to get that amendment.
14 That's June 11.

15 I think by the middle of June we'll
16 have the official EPA decision document out there with
17 the Responsiveness Summary. I want to get it done and I
18 will focus on this.

19 THE AUDIENCE: I don't think the
20 citizens want to wait another four years.

21 MR. CRON: I couldn't agree with you
22 more.

23 THE AUDIENCE: I would like to add my
24 comment to the gentleman about Ribbon Mill water
25 pressure. I'd like the Bally Water and the Washington

1 Township Water Authority to consider another tower. I
2 live in Victoria Village and when the fire companies,
3 when they pump we lose complete water pressure. In
4 fact, it sounds like a vacuum. I'd like to put that on
5 public record. I would like that Water Authority to
6 consider this. That's a health hazard when it siphons
7 back into the system.

8 THE AUDIENCE: Have our wells been
9 tested to see if this plume is in any private well?

10 MR. CRON: They have performed a
11 certain series of monitoring wells inside the Bally
12 Borough. We know the extent inside the Borough of
13 Bally and we have sampled private wells to confirm they
14 have not been contaminated and that's been our
15 conclusion.

16 THE AUDIENCE: I know you said
17 there's no problems with shower or laundry. Water in
18 our eyes, is that a concern?

19 MR. CRON: No, ma'am. Absolutely not.
20 No. The concentration of 1,4-dioxane present in the
21 public water system is very low. They do not present
22 any immediate or short-term threat to human health
23 whatsoever. Because 1,4-dioxane is classified as a
24 probable human carcinogen there is a potential
25 long-term threat to human health that we want to

1 address via the response action, in this case the new
2 municipal supply well.

3 THE AUDIENCE: About the treatment
4 well or the treatment of the well, Number 3, you're
5 having other hearings regarding that?

6 MR. CRON: That's correct.

7 THE AUDIENCE: When is that
8 scheduled?

9 MR. CRON: In the near future. EPA is
10 at the beginning of the process. For the new municipal
11 well we want to complete this response action, not the
12 whole thing but the agency decision on this and then
13 focus on that question, where should the extraction
14 well be discharged, what's the best discharge location.
15 We will perform public hearings on that.

16 THE AUDIENCE: I think I want to
17 correct the gentleman. When they pump out that fire
18 hydrant I believe that's Bally's water system. There is
19 no water system in Washington Township. There is only
20 a sewer that runs down Route 100.

21 THE AUDIENCE: It is on the Bally --
22 the bill is via Washington Township.

23 THE AUDIENCE: They collect from you,
24 buddy, a thousand bucks a year for sewer.

25 MR. CRON: If you have any questions

1 and you want to come talk to me, I'll be here.

2 Otherwise that's the presentation I have tonight.

3 Thank you for your time.

4 MS. WALLS: I'd like to thank you for
5 coming. Our comment period ends midnight April 11. And
6 also when our Responsiveness Summary will be available
7 we'll send another flyer out to your homes.

8 Thank you and good night.

9 (The hearing concluded at 7:45 p.m.)

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_____4/9_____, 2007

I hereby certify that the evidence and proceedings are contained fully and accurately in the notes taken by me of the hearing, and that this is a correct transcript of the same.



Stacie Burns
Notary Public

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